

LISTING OF CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application:

Claims 1 through 38. (Cancelled)

Claim 39. (Currently amended) A device for making quantified determinations of the quality of a surface, comprising:

a light diode aligned at a first predetermined angle to the surface, said light diode emitting an emitted light at the surface, said emitted light having a light intensity over the entire visible spectral range;

a photo sensor aligned at a second predetermined angle to the surface, said photo sensor generating a signal based on a reflected light from the surface;

a filter arranged between said light diode and/or said photo sensor, said filter for adjusting said emitted light and/or said reflected light so that an aggregate spectra of said light diode, said photo sensor and said filter correspond to an aggregate of daylight spectrum and eye sensitivity; and

a controller configured to derive at least one characteristic of the surface based on said signal; and

a scatter disk arrangement positioned with respect to said light diode so that said emitted light homogeneously illuminates the surface.

40. (Previously presented) The device according to claim 39, wherein said at least one characteristic is gloss.

41. (Previously presented) The device according to claim 39, wherein said at least one characteristic comprises at least three characteristics.

42. (Previously presented) The device according to claim 39, wherein said at least one characteristic is a parameter selected from the group consisting of gloss, haze, distinctness of image, color, and any combinations thereof.

43. (Cancelled).

44. (Previously presented) The device according to claim 39, further comprising a second light diode.

45. (Previously presented) The device according to claim 39, further comprising a plurality of photo sensors arranged adjacent to one another.

46. (Previously presented) The device according to claim 39, wherein at least a portion of said emitted light comprises a light pattern.

47. (Previously presented) The device according to claim 46, wherein said light pattern comprises at least one light/dark edge.

48. (Previously presented) The device according to claim 46, wherein said light pattern is a pattern selected from the group consisting of a grid form, a cross-mesh form, an ellipse form, and a circular form.

49. (Previously presented) The device according to claim 39, further comprising a light source aligned at a predetermined angle to the surface, said light source emitting an additional light at the surface.

50. (Previously presented) The device according to claim 49, wherein said predetermined angle is an angle selected from the group consisting of 0°, 10°, 15°, 20°, 30°, 45°, 60°, 75°, 80°, and 85°.

51. (Previously presented) The device according to claim 39, wherein said emitted light comprises at least one light strip.

52. (Previously presented) The device according to claim 39, further comprising a temperature device for determining a temperature of each of said light diode and said photo sensor so that a temperature-corrected determination of said at least one characteristic can be made.

53. (Previously presented) The device according to claim 39, further comprising a measurement wheel positionable on the surface to maintain a constant spacing therefrom during movement of the device relative to the surface.

54. (Previously presented) The device according to claim 39, wherein said photo sensor comprises at least three photo sensitive elements.

55. (Previously presented) The device according to claim 39, further comprising a measurement cycle of less than 0.2 seconds.

56. (Currently amended) A method for making quantified determinations of the quality of a surface, comprising:

aligning a light diode at a first predetermined angle to the surface;

controlling said light diode to emit an emitted light in the visible spectrum at the surface;

aligning a photo sensor at a second predetermined angle to the surface so that said photo sensor receives a reflected light from the surface;

controlling said photo sensor to detect said reflected light and to emit an electrical measurement based on said reflected light;

filtering said emitted light and/or said reflected light so that an aggregate spectra corresponds to an aggregate of daylight spectrum and eye sensitivity; and

determining at least one characteristic of the surface based on said signal; and

positioning a scatter disk arrangement with respect to said light diode so that said emitted light homogeneously illuminates the surface.

57. (Previously presented) The method according to claim 56, wherein determining said at least one characteristic comprises a measurement cycle of less than 0.2 seconds.

58. (Previously presented) The method according to claim 56, wherein said at least one characteristic is a parameter selected from the group consisting of gloss, haze, distinctness of image, color, and any combinations thereof.

59. (Cancelled).

60. (Previously presented) The method according to claim 56, further comprising arranging a plurality of photo sensors adjacent to one another.

61. (Previously presented) The method according to claim 56, further comprising causing at least a portion of said emitted light to comprise a light pattern.

62. (Previously presented) The method according to claim 61, wherein said light pattern comprises at least one light/dark edge.

63. (Previously presented) The method according to claim 61, wherein said light pattern is a pattern selected from the group consisting of a grid form, a cross-mesh form, an ellipse form, and a circular form.

64. (Previously presented) The method according to claim 56, further comprising causing relative movement between said light diode and said photo sensor and the surface.

65. (Previously presented) The device according to claim 39, wherein said light diode comprises a light emitting member, said light emitting member having a precisely defined position within the light diode, wherein said precisely defined position does not vary over time.

66. (Previously presented) The device according to claim 39, wherein said first predetermined angle does not vary over time.

67. (Previously presented) The method according to claim 56, wherein said light diode comprises a light emitting member, said light emitting member having a precisely defined position within the light diode, wherein said precisely defined position does not vary over time.

68. (Previously presented) The method according to claim 56, wherein said first predetermined angle does not vary over time.